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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,135	08/21/2001	Moshe Levin	50094/003001	8828
21559	7590	09/17/2004	EXAMINER	
CLARK & ELBING LLP			CHOOBIN, BARRY	
101 FEDERAL STREET			ART UNIT	
BOSTON, MA 02110			PAPER NUMBER	
			2625	

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/935,135	Applicant(s) LEVIN ET AL.	
	Examiner Barry Choobin	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-15 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>January 28, 2002</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on January 28, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 9, 11 -14 are rejected under 35 U.S.C. 102(e) as being anticipated by Zavislan (US 6,684,092).

As to claim 1, Zavislan discloses a medical decision support system comprising
(a system for facilitating pathological examination of a lesion in tissue)

- A computer (column 4, lines 1-2); and

A computer program product arranged (column 4, lines 5-7 wherein a personal computer is programmed to operate in accordance with instructions stored in its memory) to provide data derived from examination of digital images of a tissue specimen (column 4, lines 11-13) according to predetermined criteria for histopathological analysis (column 4, lines 28-30 wherein predetermined criteria

corresponds to "sufficient resolution for pathological examination of lesion", as to histopathological in claim language versus pathological in prior art, note that they both by definition mean the structural and functional changes produced by the diseases) .

As to claim 2, Zavislan discloses a computerized medical decision support system as in claim 1 (see claim 1, above), wherein said computer program product further includes an analysis module (column 3, lines 13-26 wherein the computer generates location information referencing the location in the microscopic picture and the location information, corresponds to analysis module in this claim. Furthermore, Zavislan discloses a pathology computer 14, file structure 80, corresponds to analysis module. See column 7, lines 15-26).

As to claim 5, Zavislan discloses an image acquisition module for providing said digital images (fig.1, 22).

As to claim 9, Zavislan discloses a method for assisting in obtaining a pathological diagnosis from a plurality of pictures representing a specimen on a slide, the method comprising the following steps;

- Obtaining digitized data corresponding to images of a specimen on a slide placed under a microscope (fig.1, camera 19 and imager 22 both take same images);
- Processing said images (exam computer 12);
- Examining the images in accordance with predetermined histopathological

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Criteria', and

- Providing an examination report based on said examination (the display corresponds to a report or an output).

As to claim 11, Zavislan discloses the method according to claim 9 (see claim 9, above), further comprising;

- Providing an analysis based on said examination (column 3, lines 13-26).

As to claim 12, Zavislan discloses the method according to claim 9 (see claim 9, above), further comprising;

- Providing a diagnosis based on said examination (column 3, lines 5-12).

As to claim 13, Zavislan disclose the method according to claim 9 (see claim 9, above), wherein the step of obtaining digitized data includes obtaining digitized data corresponding to images of a specimen taken at least one magnification (low magnification, column 5, lines 1-4).

As to claim 14, Zavislan disclose the method according to claim 9 (see claim 9, above), wherein the step of obtaining digitized data includes obtaining digitized data corresponding to images of a specimen taken at a plurality of different magnifications (column 5, lines 1-12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zavislan in view of Papier et al (US 2002/0021828).

As to claim 3, Zavislan discloses a computerized medical decision support system as in claim 2 (see claim 2, above).

Zavislan does not expressly disclose a computer program with a diagnosis module.

Papier et al disclose a system and method to aid diagnoses using cross-referenced knowledge and image database comprising a diagnosis module (page 15, 0267).

Papier et al and Zavislan are combinable because they are from the same field of endeavor, which is to aid or facilitate pathological examination and diagnoses.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Zavislan with Papier et al to process the characteristic entered to identify, from a plurality of possible causes of death, a subset of causes that are consistent with the characteristics and description entered.

The suggestion/motivation for doing so would have been to improve the investigation of diagnostic hypotheses and to narrow and create at least one subset of possible diagnoses (page 1, 0005).

Therefore, it would have been obvious to combine Papier et al and Zavislan.

As to claim 4, Papier et al disclose a computerized medical decision support system as in claim 3 (see claim 3) wherein said system further provides data concerning similar cases, including images and related information analysis (page 15, 0267).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zavislan in view of Weinstein (US 5,297,034).

As to claim 6, Zavislan discloses a computerized medical decision support system as in claim 5 (see claim 5 above),

a microscope (confocal imager corresponds to a microscope).

Zavislan does not expressly disclose a digital camera coupled to said microscope for capturing, through said microscope, at least one picture representing a specimen on a slide and generating digitized images thereof.

Weinstein discloses Telepathology diagnostic network comprising; a digital camera coupled to said microscope for capturing, through said microscope, at least one picture representing a specimen on a slide and generating digitized images thereof (fig.5) for picking up the magnified image of the specimen and converting it to an electronic video signal (column 8, lines 10-12).

Weinstein is combinable with Zavislan because they both deal with processing specimen image using microscope.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Zavislan with Weinstein in order to convert the microscopic image to video signal for broad band transmission for verification (column 8, lines 10-27).

Therefore, it would have been obvious to combine Weinstein with Zalvislan in order to obtain the invention as specified in claim 6.

As to claim 7, Weinstein discloses the computerized medical decision support system as in claim 6 (see claim 6, above), wherein said digital camera is arranged to capture, through said microscope, more than one picture representing a specimen on a slide and generating digitized images thereof (column 6, lines 3-8).

As to claim 8, Weinstein disclose communication means for transferring data from the digital camera to a remote server for image processing, and from the server back to the computer (column 4, lines 43-47).

As to claim 15, Weistein discloses mapping elements to permit zooming from images at one magnification to another at an analogous point in the images (column 9, lines 54-62).

Allowable Subject Matter

8. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

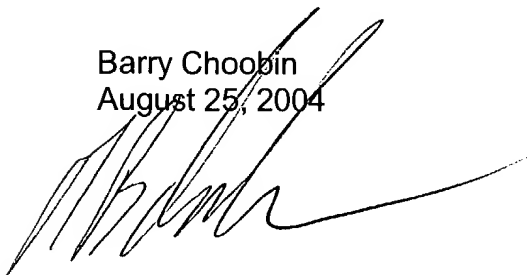
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Barry Choobin
August 25, 2004

A handwritten signature in black ink, appearing to read 'Barry Choobin', written over the printed name and date.